**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/632,722
	Filing Date	August 4, 2000
	First Named Inventor	Himmelspach, Michele
	Art Unit	1653
	Examiner Name	Robinson, Hope A.
Total Number of Pages in This Submission	Attorney Docket Number	20695C-005700US

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Return Postcard, copies of forty-two (42) cited references
Remarks		The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual	Townsend and Townsend and Crew LLP Scott L. Aussenhus	Reg. No. 42,271
Signature		
Date	09-30-03	

CERTIFICATE OF TRANSMISSION/MAILING

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Signature		Date	9/30/03

U.S. PATENT & TRADEMARK OFFICE
OCT 02 2003

PTO/SB/17 (08-03)

FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180

Complete if Known

Application Number 09/632,722
Filing Date August 4, 2000
First Named Inventor Himmelsbach, Michele
Examiner Name Robinson, Hope A.
Art Unit 1653
Attorney Docket No. 20695C-005700US

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METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit
Account
Number

20-1430

Deposit
Account
Name

Townsend and Townsend and Crew LLP

The Director is authorized to: (check all that apply)

- ☐ Charge fee(s) indicated below ☒ Credit any overpayments
☐ Charge any additional fee(s) during the pendency of this application
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1)

(\$)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims	Fees from below	Fee Paid
Total Claims			
Independent Claims			
Multiple Dependent			

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$)

**or number previously paid, if greater. For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large	Entity	Small	Entity	Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	2053	65	Non-English specification	
1812	2,520	2812	1,260	For filing a request for reexamination	
1804	920*	2804	460*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	2805	920*	Requesting publication of SIR after Examiner action	
125*	110	225*	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	2451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	2807	50	Petitions related to provisional applications	
1906	180	2806	180	Submission of Information Disclosure Stmt	180
8021	40	28021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR § 1.129(b))	
1301	750	2801	375	Request for Continued Examination (RCE)	
1302	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid SUBTOTAL (3)

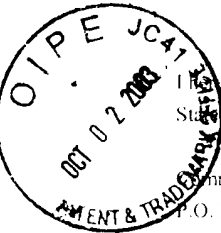
(\$180)

SUBMITTED BY

Complete (if applicable)

Name (Print/Type) Scott L. Aisenhus Registration No. (Attorney/Agent) 42,271 Telephone 303-571-4000
Signature [Signature] Date 9/30/03

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On 9/30/2003

TOWNSEND and TOWNSEND and CREW LLP

By: Nicole M. Wartell
Nicole M. Wartell

PATENT
Attorney Docket No.: 20695C-005700US
Client Reference No.: FA23500

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

HIMMELSPACH et al.

Application No.: 09/632,722

Filed: August 4, 2000

For: FACTOR X ANALOG WITH AN
IMPROVED ABILITY TO BE
ACTIVATED

Examiner: Robinson, Hope A.

Art Unit: 1653

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

10/06/2003 MROCHA1 00000015 201430 09632722

01 FC:100% 100.00 DA

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

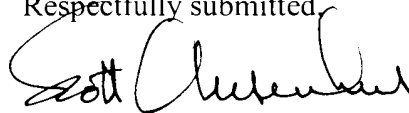
As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

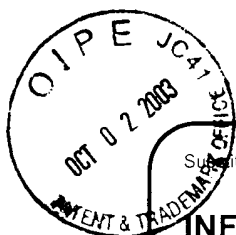
Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Scott L. Ausenhus
Reg. No. 42,271

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, 8th Floor
San Francisco, California 94111-3834
Tel: 303-571-4000
Fax: 303-571-4321
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PTO SB 08A (08-05)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 1 of 3

Complete if Known

Application Number	09/632,722
Filing Date	August 4, 2000
First Named Inventor	Himmelspace
Art Unit	1653
Examiner Name	Robinson, Hope A.
Attorney Docket Number	20695C-005700US

U.S. PATENT DOCUMENTS+

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	A1	US-4,359,049	11-16-1982	Redl et al.	
	A2	US-4,501,731	02-26-1985	Tishkoff et al.	
	A3	US-4,735,616	04-05-1988	Eibl et al.	
	A4	US-5,460,950	10-24-1995	Barr et al.	
	A5	US-5,597,799	01-28-1997	Wolf	
	A6	US-5,635,481	06-03-1997	Wolf	
	A7	US-5,858,658	01-12-1999	Haemmerle et al.	
	A8	US-6,210,929 B1	04-03-2001	Schlok et al.	
	A9	US-6,562,598 B1	05-13-2003	Himmelspace et al.	

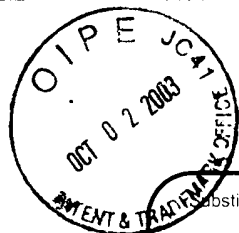
FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	B1	EPO	EP 0 651 054	A1	03-05-1995			<input type="checkbox"/>
	B2	PCT	WO 94/29370	A1	12-22-1994			<input type="checkbox"/>

Examiner
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* EXAMINER: initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 2 of 3

Complete if Known

Application Number	09/632,722
Filing Date	August 4, 2000
First Named Inventor	Himmelspace
Art Unit	1653
Examiner Name	Robinson, Hope A.
Attorney Docket Number	20695C-005700US

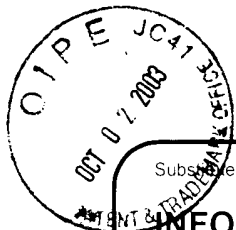
NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C1	BAJAJ, S. & MANN, K. "Simultaneous Purification of Bovine Prothrombin and Factor X." <i>J. Biol. Chem.</i> , November 25, 1973, pp. 7729-7741, Vol. 248, No. 22.	
	C2	BARR, P. J. "Mammalian Subtilisins: The Long-Sought Dibasic Processing Endoproteases." <i>Cell</i> , 1991, pp. 1-3, Vol. 66.	
	C3	CLACKSON, T. et al. <i>PCR A Practical Approach, General Applications of PCR to Gene Cloning and Manipulation</i> , Eds. McPherson, Quirke and Taylor, 1991, pp. 187-214.	
	C4	EBY, C. S. et al. "Characterization of the Structure and Function of the Carboxy Terminal Peptide of Human Factor X." <i>Blood</i> , 1992, pp. 1214, Vol. 80, Suppl. 1, Abstract only.	
	C5	ELSINGER, R. <i>Laboratory Tests of Activated Prothrombin Complex Preparations; Activated Prothrombin Complex Concentrates</i> , 1982, pp. 77-87 Chapter 11, Eds. Mariani, Russo and Mandelli, Praeger Publishers, U.S.A.	
	C6	FAIR, D. S. and BAHNAK, B. R. "Human Hepatoma Cells Secrete Single Chain Factor S, Prothombin, and Antithrombin III." <i>Blood</i> , July 1984, pp. 194-204, Vol. 64, No. 1.	
	C7	FISCHER et al. "Structural Analysis of Recombinant von Willebrand Factor: Identification of hetero- and homo-dimers." <i>FEBS Lett.</i> , 1994, pp. 345-348, Vol. 351.	
	C8	FUNG, M. et al. "Characterization of an almost full-length cDNA coding for human blood coagulation factor X." <i>Proc. Natl. Acad. Sci. USA</i> , June 1985, pp. 3591-3595, Vol. 82.	
	C9	GILES, A. et al. "A combination of factor Xa and phosphatidylcholine-phosphatidylserine vesicles bypasses factor VIII in vivo." <i>British J. Haematology</i> , 1988, pp. 491-497, Vol. 69.	
	C10	GORDON, V. M. et al. "Proteolytic Activation of Bacterial Toxins by Eukaryotic Cells is Performed by Furin and by Additional Cellular Proteases." <i>Infect. Immunol.</i> , 1995, pp. 82-87, Vol. 63.	
	C11	HIMMELSPACH, M. et al. "Alteration of the Specificity of fX Activation by Substitution of Amino Acids Constituting its Activation Site". <i>XVII Congress of the International Society on Thrombosis and Haemostasis</i> , 1999, p. 758.	
	C12	JESTY, J. et al. "The Mechanism of Activation of Factor X: Kinetic Control of Alternative Pathways Leading to the Formation of Activated Factor X." <i>J. Biol. Chem.</i> , September 10, 1974, pp. 5614-5622, Vol. 249, No. 17.	
	C13	LEYTUS, S. et al. "Characterization of cDNA coding for human factor X." <i>Proc. Natl. Acad. Sci. USA</i> , June 1984, pp. 3699-3702, Vol. 81.	
	C14	LEYTUS, S. et al. "Gene for Human Factor S: A Blood Coagulation Factor Whose Gene Organization is Essentially identical with that of Factor IX and Protein C." <i>Biochem.</i> , 1986, pp. 5098-5102, Vol. 25.	
	C15	MERTENS, K. & BERTINA, R. "Pathways in the Activation of Human Coagulation Factor X" <i>Biochem. J.</i> , 1980, pp. 647-658, Vol. 185.	
	C16	MESSIER, T. et al. "Cloning and expression in COS-1 cells of a full-length cDNA encoding human coagulation factor X." <i>Gene</i> , 1991, pp. 291-294, Vol. 99, Elsevier.	
	C17	MOEHRING, J. M. & MOEHRING, T. J. "Strains of CHO-K1 Cells Resistant to Pseudomonas Exotoxin A and Cross-Resistant to Diphtheria Toxin and Viruses." <i>Infection and Immunity</i> , 1983, pp. 998-1009, Vol. 41.	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Sheet 3 of 3

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C18	MORITA et al. "Structural and Functional Characteristics of a Proteolytically Modified 'Gla Domain-less' Bovine Factor X and Xa (des light chain residues 1-44)." <i>General Biochem.</i> , 1980, p. 219, Vol. 92, Abstract No. 92 71374k.	
	C19	NGO et al. <u>Computational Complexity, Protein Structure Prediction and the Levinthal Paradox in the Protein Folding Problem and Tertiary Structure</u> , 1994, Eds. K. Mez, Jr. and Le Grand, Birkhauser, Boston.	
	C20	OHNISHI, Y. et al. "A Furin-Defective Cell Line is Able to Process Correctly the gp160 of Human Immunodeficiency Virus Type 1." <i>J. Virol.</i> , 1994, pp. 4075-4079, Vol. 68.	
	C21	PRYZDIAL, E. & FESSLER, G. "Autoproteolysis or Plasmin-mediated Cleavage of Factor Xa Exposes a Plasminogen Binding Site and Inhibits Coagulation." <i>J. Biol. Chem.</i> , July 12, 1996, pp. 16614-16620, Vol. 271, No. 28.	
	C22	PRYZDIAL, E. & FESSLER, G. "Kinetics of Blood Coagulation of Factor Xa Autoproteolytic Conversion of Factor Xa." <i>J. Biol. Chem.</i> , July 12, 1996, pp. 16621-16626, Vol. 271, No. 28.	
	C23	PEHEMULLA, A. & KAUFMAN, R.J. "Preferred Sequence Requirements for Cleavage of Pro-von Willebrand Factor by Propeptide-Processing Enzymes" <i>Blood</i> , 1992, pp. 2349-2355, Vol. 79.	
	C24	RUDOLPH, A.E. et al. "Expression, Purification and Characterization of Recombinant Human Factor X ¹ ." <i>Protein Expression and Purification</i> , 1997, pp. 373-378, Vol. 10.	
	C25	SHERPILL, G.B. et al. "Inactivation of Human Blood Coagulation Factor X by Chemical Modification of Gamma-Carboxyglutamic Acid Residues" <i>Enzymes</i> , 1985, p. 239, Vol. 102, Abstract No. 102 2489q.	
	C26	TENG, C. & SEEGER, W. "Production of factor X and factor Xa variants with thrombin, acutin and by autolysis." <i>Thrombosis Research</i> 1981, pp. 213-220, Vol. 22.	
	C27	URLAUB, G. & CHASIN, L. "Isolation of Chinese hamster cell mutants deficient in dihydrofolate reductase activity." <i>Proc. Natl. Acad. Sci. USA</i> , July 1980, pp. 4216-4220, Vol. 77, No. 7.	
	C28	WALLIN, R. et al. "Intracellular Proteolytic Processing of the Two-Chain Vitamin K-Dependent Coagulation Factor X." <i>Thrombosis Res.</i> , 1994, pp. 395-403, Vol. 73.	
	C29	WATZKE, H. & HIGH, K. "Factor X." <i>Molecular Basis of Thrombosis and Hemostasis</i> , 1995, pp. 239-255, Chapter 11, Eds. High and Roberts.	
	C30	WELLS et al. "Additivity of Mutational Effects in Proteins" <i>Biochemistry</i> , 1990, pp. 8509-8517, Vol. 29, No. 37.	
	C31	WOLF, D. et al. "Design of Constructs for the Expression of Biologically Active Recombinant Human Factors X and Xa." <i>J. Biol. Chem.</i> , July 25, 1991, pp. 13726-13730, Vol. 266, No. 21.	

Examiner Signature		Date Considered	
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